

## Notes from the 45<sup>th</sup> Meeting of the Market Pricing Working Group

Monday October 29<sup>th</sup>, 2007 8:30 a.m. – 1:30 p.m.

Park Plaza Hotel, Carlson Court, Toronto

**FINAL**

### Attendees

<u>Name</u>	<u>Company</u>	<u>Name</u>	<u>Company</u>
Abdelnour, Francois	IVACO	Chase, Maia	IESO
Bell, Brian	Ontario Power Generation	Finkbeiner, Darren	IESO
Bellevance, Erik	Hydro-Quebec	Greenberg, Jessica	IESO
Bellissimo, Vittoria	Ontario Power Authority	Kozlik, Ken (agenda items 1)	IESO
Brady, Sean	Ontario Power Authority	MacKenzie, John	IESO
Cary, Rob	Sithe Power; Cardinal Power	Maria, Gamal	IESO
Degelman, Cara	Abitibi Consolidated	Radik, Rostik	IESO
Dumais, Dan	Xtrata Nickel	Rivard, Brian	IESO
Duzy, Margaret	TransCanada Energy	Robitaille, Dave	IESO
Erickson, Tracy	Brookfield Power	Savage, Jessica	IESO
Forsyth, Dave	Gerdau Ameristeel Corporation		
Hassan, Fred	Power Workers Union		
Hunt, Robert	Optimal Technologies		
Hunter, Kelly (teleconference)	Manitoba Hydro		
Loughren, Chris	Bruce Power		
Kerr, Paul	Coral Energy		
Mei, Sam	AMPCO		
Thoma, Tony	Wecast Industries		
Van, Sam	Direct Energy		
Viljakainen, Bert	Bowater Canadian Forest Products		
Wu, Lawrence	TEAM		
Yang, Bun Li	E4		
Zerek, Peter	Ontario Power Authority		

Please refer to documents for each agenda item for this meeting, published on the IESO public web-site at the following location:

[http://www.ieso.ca/imoweb/consult/mep\\_mp.asp](http://www.ieso.ca/imoweb/consult/mep_mp.asp)

## Item #1: Administration

Ken Kozlik (IESO) provided the following opening remarks:

- Brian Rivard (IESO) is taking over as chair of the MPWG effective immediately.
- The IESO Board has requested that performance measures for 2008 be established for the MPWG. The IESO has proposed that the performance measure be that the MPWG “address” three specific issues in 2008. “Addressing an issue” means that the MPWG has thoroughly analysed and discussed an issue to the point where the IESO has made a recommendation on what should be done, if anything, in regards to that issue. Maintaining the status quo in regards to an issue would be a possible outcome.

The IESO is proposing that the following three issues be the 2008 priority issues and used as the 2008 MPWG performance measures:

1. Issue #9: Peak vs. Average Pre-Dispatch Demand Forecast
2. Issue #39: Exporting Operating Reserve
3. Issue #40: Nodal Pricing for Imports and Exports

Another potential 2008 priority issue could be Issue #7: Imports and Exports Setting Real-Time Price. This issue would need to be re-visited once the direction on the day-ahead market is known (expected in Q2 of 2008).

Stakeholder engagement plans would be developed for each of 2008 priority issues, specifying deliverables and timelines.

### Member Questions, Comments and Discussion

- Would selling capacity to neighbouring jurisdictions be part of Issue #39?  
**IESO response** - not at this time as there is no market mechanism in Ontario to value or provide capacity.
- Would offering operating reserve into Ontario from a neighbouring jurisdiction be part of Issue #39?  
**IESO response** – yes.
- Members identified the following issues as possible 2008 priority issues:
  - (i) Market impact of the ongoing changes to the Ontario generation fleet; and
  - (ii) Ontario capacity market,
- Members should provide advice to the IESO on 2008 priority issues, considering OPA and OEB developments. There should be a discussion at the December MPWG meeting and finalization of a 2008 work plan.
- MPWG meeting duration may need to be extended in order to address three 2008 priority issues as the issues all likely to be complex and contentious.
- A consumer noted that (i) the value and provision of capacity in Ontario is an OPA responsibility, not an IESO-administered markets responsibility, and (ii) the

MPWG is a forum for market participants, as well as the IESO, to raise issues regarding market pricing.

**Next steps**

- MPWG members requested to provide the IESO with feedback on 2008 priority issues. The IESO will provide a summary of feedback received for discussion at the December 6<sup>th</sup>, 2007 MPWG meeting (refer to action item AI 45-1).
- IESO to establish a MPWG meeting standing agenda item for Member Issues (refer to action item AI 45-2).

**b. Review Notes from August 23<sup>rd</sup>, 2007 Meeting (MPWG 44)**

**Member Questions, Comments and Discussion**

- None.

**Next steps**

- IESO to post meeting notes as final

**c. Review of Action Items**

- Action item 33-1. Refer to document published on the IESO public web-site at the following location:  
[http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071029\\_item1b\\_AI\\_33-1.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029_item1b_AI_33-1.pdf)

**Member Questions, Comments and Discussion**

- A generator suggested that a more detailed definition of price (e.g. proper attributes during scarcity of supply) would provide better guidance in addressing market pricing issues.

**Next steps**

- MPWG members requested to provide the IESO with feedback on the proposed definitions of efficiencies and price. The IESO will provide a summary of feedback received for discussion at the December 6<sup>th</sup>, 2007 MPWG meeting (refer to action 45-3).
  - Action item 44-3. Refer to document published on the IESO public web-site at the following location:  
[http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071029-item1b\\_AI\\_44-3.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-item1b_AI_44-3.pdf)
- Member Questions, Comments and Discussion**
- A trader recommended that the scope of the consultants review include direct consultation with Ontario market participants. The IESO agreed.
- Next steps**
- AI 44-3 closed. IESO will initiate request for proposals for consultant's study and update the MPWG forward agenda accordingly.

d. **Updates**

Brian Rivard (IESO) provided the following updates:

- **Issue #9: Peak vs. Average Pre-Dispatch Demand Forecast**

Due to staffing turn-over and resource limitations, the IESO is behind schedule on where it thought it would be in regards to the efficiency analysis for this issue.

**Member Questions, Comments and Discussion**

- None.

**Item #2: Issue #38 - Shared Activation of Reserve (SAR)**

Dave Robitaille (IESO) made a presentation on the existing processes on the use and payback of inadvertent energy. Refer to the following document published on the IESO public web-site:

[http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071029-Item2\\_Issue\\_38.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-Item2_Issue_38.pdf)

**Member Questions, Comments and Discussion**

- a. In response to member questions, the IESO made the following points of clarification:
  - The high accumulation of inadvertent energy during the off-peak hours is due to the combination of two factors: (i) the Eastern Interconnection system frequency is typically higher than required at that time due to individual control areas characteristically over-generating and (ii) those same control areas would need to under-generate in order to facilitate pay-back.
  - Pay-back of inadvertent energy should be done at the same time of day as the energy was accumulated.
  - There is no reliability standard requirement to pay-back inadvertent energy. There is a reliability standard requirement to keep track of inadvertent energy.
  - The IESO needs to conduct analysis of the market efficiency impacts of treating the receipt of shared activation of reserve the same as an emergency energy purchase i.e. Do not reduce demand in the real-time market schedule. It should be noted that receipt of shared activation of reserve is not necessarily an indication of an Ontario supply shortage situation, whereas an emergency energy purchase is an indication of an Ontario supply shortage. Shared activation of reserve is used to assist a control area in recovering from a contingency, which may or may not be the result of a supply shortage.
  - It is not known whether or not market rule amendments are required to authorize treating the receipt of SAR the same as an emergency energy purchase. Changes to IESO tools would be required to implement the change.
- b. Generators noted that there was a symmetrical logic argument in favour of treating the receipt of SAR the same as an emergency energy purchase i.e. do not reduce demand in the market schedule.

- c. A consumer suggested that complimentary treatment of emergency energy sales and provision of SAR to other control areas be considered as well e.g. should the IESO increase demand in the market schedule under these circumstances. Generators agreed that such treatment appeared to make sense.

**Next steps:**

- IESO to conduct market efficiency analysis of changing treatment of SAR and report back analysis results and recommendation to the MPWG.
- IESO to investigate whether complimentary treatment of emergency energy sales and provision of SAR was considered and report back to MPWG on findings.

**Item #3: Issue #30 – Forecast of Real-Time Price**

Nash Peerbocus (IESO) gave a presentation on the day-ahead econometric model developed to forecast real-time HOEP. Refer to the presentation published on the IESO web site at the following link:

[http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071029-Item3\\_Issue30.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-Item3_Issue30.pdf)

**Member Questions, Comments and Discussion**

- a. Members asked a number of clarification questions, to which the IESO made the following responses:
- All the information used to derive the forecast is currently publicly available, with the exception of the day-ahead market supply cushion. This parameter is not published, but could be as it is an aggregate value and is not confidential.
  - The model already adjusts for uncertainty in the day-ahead demand forecast relative to the real-time actual demand.
  - The IESO could provide information on the uncertainty of key variables used in the model.
  - Response to the price forecast (e.g. consumers increasing or reducing consumption in anticipation of price) and systemic changes (e.g. change in Ontario supply mix) would be incorporated in the model over-time as the model evolves.
  - The reasons for the difference in on-peak versus off-peak accuracy (slide 12 of the presentation) are not known at this time, but would need to be addressed in order to improve the model.
  - The MISO price used was the Michigan HUB price. The NYISO price used was the NY Zone A price.
  - The IESO could make the model publicly available for others to use. If the IESO was to undertake price forecasting using this kind of model, it would be an automated process.

- Using the existing model to forecasting Ontario shadow prices is not straightforward. The drivers for shadow prices may be very different from the drivers affecting the HOEP.
  - The appropriateness of the IESO, as market administrator, in market price forecasting still needs to be addressed.
- b. An intertie trader asserted that any IESO costs incurred to facilitate a retail hourly pricing project should not be paid for by wholesale market participants.
- c. An intertie trader asserted that the MISO and New York day-ahead prices have a built-in bias relative to real-time price i.e. their day-ahead price is not a forecast of real-time price. The IESO should not be comparing the performance of its day-ahead model to the performance of the MISO and NYISO day-ahead prices relative to real-time price.
- d. A generator noted that consideration of whether the IESO should be in the business of forecasting market price should include whether other ISOs forecast price and whether FERC or the Market Surveillance Panel have opinions on ISOs forecasting price.

**Next steps:**

- MPWG members requested to provide feedback to the IESO (Nash Peerbocus or Brian Rivard) on usefulness of the forecast and what additional analysis and study would make the forecast more useful.

**Item #4: Ontario Power Authority Demand Response Programs**

Sean Brady (Ontario Power Authority) gave a presentation on the OPA demand response programs. Refer to the presentation published on the IESO web site at the following link: [http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071029-OPA\\_DR-Presentation.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-OPA_DR-Presentation.pdf)

**Member Questions, Comments and Discussion**

- a. Members asked a number of clarification questions regarding Demand Response program #1 (DR1), to which the OPA and IESO made the following responses:
- Payments are determined by multiplying the strike price *times* the MW curtailed *times* three hours. The MW curtailed is relative to an established baseline for the facility. The strike price is relatively close to the floor price.
  - Curtailment is strictly voluntary.
  - There is about 270 MW signed up under this program. Experience has shown about a 35% response rate.
  - The OPA does not provide any MW curtailment information to the IESO.
  - The IESO does not factor in any potential DR1 curtailments in its demand forecast as the MW quantities are small and curtailment is strictly voluntary.

- Any load planning to curtail under DR1 must remove itself from the IESO-administered markets i.e. remove any bids or offers.
- b. Members asked a number of clarification questions regarding Demand Response program #2 (DR2), to which the OPA and IESO made the following responses:
  - DR2 is a load shifting program, not a load reduction program. Participants in this program must demonstrate that the load shift occurred.
  - The OPA uses industry standard baseline determination techniques.
  - Draft rules regarding this program are on the OPA web site.
  - Availability rates are determined through analysis and reflect the value of resources in the planning time frame.
  - DR2 information flows to the IESO and the IESO cannot deny a DR2 withdrawal from the IESO-administered markets
  - The IESO would be the settlement agent for DR2.
- c. Members asked a number of clarification questions regarding Demand Response program #3 (DR3), to which the OPA and IESO made the following responses:
  - DR3 has no fuel type restriction on the stand-by generation, but the participant must have all other approvals necessary to operate as required under DR3.
  - There is no cap on this program. There is sign-up window. The expected uptake on this program is not known at this time.
  - The 5 MW limit is judged to suit a typical single load facility directly connected to the IESO-controlled grid.
  - This program is not expected to eliminate the need for additional peaking generation.
  - The IESO would be the settlement agent for DR3.
- d. A generator requested a simple numerical example of DR2 and DR3 response. The OPA suggested that such examples would be possible.
- e. A generator suggested that the programs would provide incentive for participants to establish high baselines in order to easily demonstrate load reductions or shifting.

Darren Finkbeiner (IESO) gave a presentation on the IESO integration of OPA demand response programs. Refer to the presentation published on the IESO web site at the following link:

[http://www.ieso.ca/imoweb/pubs/consult/mep2/MP\\_WG-20071029-Integration\\_OPA\\_DR\\_Programs\\_Presentation.pdf](http://www.ieso.ca/imoweb/pubs/consult/mep2/MP_WG-20071029-Integration_OPA_DR_Programs_Presentation.pdf)

- f. Members asked a number of clarification questions, to which the IESO made the following responses:
  - The IESO has revised the demand forecast in the 18-month outlook to reflect the DR2 program.

- DR1, DR2 and DR3 are OPA programs and the OPA has the final say on what information can be made public. The IESO is still discussing with the OPA as to what DR information can be made public.
  - The IESO does not use expected DR3 activations in its assessment of generator and transmission outages, but would investigate whether it should.
- g. A consumer suggested that if the expected DR3 programs activations were used to consider generator and transmission outages, consumers could end up paying twice: higher uplifts to cover DR3 payments and higher market prices as result of the outage.
- h. A retailer stated that the DR3 program would aggravate market pricing signals that do not accurately reflect existing supply and demand situation. The OPA responded that the DR programs processes and impacts would be assessed to ensure that they provide value to the rate-payers of Ontario.
- i. An intertie trader stated that the role of the IESO in these programs goes beyond being simply a settlement agent. It is also a “dispatch agent” for DR3 and that activity can impact the market. He questioned whether such a role was appropriate. He suggested that the IESO’s role and activities needed to be codified in the market rules to provide transparency to the market.
- j. A generator suggested that while the DR2 program was relatively fixed and predictable, the DR3 program was not. A greater explanation and understanding of the DR3 program and the criteria for activation was needed.

**Next steps:**

- The IESO agreed to report back to the MPWG on the following elements of the OPA DR programs:
    1. Should expected DR3 programs activations were used to consider generator and transmission outages?
    2. What planning and real-time information regarding these programs can be made public?
    3. Can the transparency of the triggering and activation of these programs be improved?
    4. Define the rules for open and closed notification for the DR3 program.
    5. Are market rules needed to authorize the IESO role in the OPA DR programs?
    6. Simple numerical examples of DR2 and DR3 response.
- Refer to action item AI 45-4.

**Item #5: Issue #4: Ramp Rate**

- a. Brian Rivard (IESO) provided an update on the analysis that the IESO has committed to undertake over the next 18-months to assess the impact of the recent change to a 3x ramp rate in the real-time unconstrained sequence. The analysis will include the following:

- Quarterly simulations of market and price outcomes had the 12x ramp rate multiplier not been changed to 3x ramp rate. These simulations would include the elasticity of exports responding to real-time prices.
  - An econometric analysis of the impact of the change. This analysis would be conducted after 12-18 months of experience.
- b. An intertie trader asked what would be the IESO response if the analysis showed that the expected impacts, used to justify the change to 3x ramp rate, did not materialize. The IESO responded that such a result would increase the knowledge of the market and may result in further changes to the market.

### **Item #6: Issue #5: Simultaneous use of ramping Generation Units for Energy and Operating Reserve**

There was insufficient time to discuss the IESO paper prepared for this item in any detail.

#### **Member Questions, Comments and Discussion**

- a. A generator and an intertie trader stated that the paper provided for this item was not easy to understand and that a “plain language” version or more basic examples were necessary.

### **Item # 8 (Issue #13 Control Action Operating Reserve) and 9 (Other Business):**

These items were deferred to a future MPWG meeting.

**Next meeting: Thursday December 6<sup>th</sup>, 2007.**

#### **Action Items**

- AI 33-1: IESO to include a review of the definition of allocative and dynamic efficiencies on agenda of future MPWG meeting – preferably the November 3<sup>rd</sup> 2006 meeting.  
**Status:** open. Refer to discussion under agenda item 1(b).
- AI 34-5: IESO to report back at December MPWG meeting on peak vs average efficiencies and price impact analysis.  
**Status:** open. Only “gross inefficiencies” analysis presented and discussed at December 2006 meeting.
- AI 36-1: IESO to determine at what level of scheduling of Control Action Operating Reserve would the IESO have reliability concerns.  
**Status:** open.

- AI 36-2: Do other electricity market and system operators use peak or average demand forecasts?  
**Status:** open. New York ISO uses peak demand forecast. IESO is following up with other markets in the north-east. Information on the demand forecasts used for price determination is also required.
- AI 43-2: IESO to follow-up with MPWG member regarding “weighting” of options that impact price versus uplifts within a cost-benefit analysis. Refer to discussion under agenda item #2 paragraph (a) of notes from July 19<sup>th</sup>, 2007 meeting.  
**Status:** open
- AI 44-1: IESO to present information regarding the OPA demand response programs and integration into the IESO-administered markets and IESO-controlled grid at the next MPWG meeting (September 27<sup>th</sup>, 2007)  
**Status:** Closed. Refer to discussion under agenda item 4.
- AI 44-2: IESO to provide the following information regarding administrative pricing: refresher on current market rules and practices, data and summary of administrative pricing events and causes, IESO work programs in place to address the causes.  
**Status:** open. IESO has instituted the reporting of administrative pricing events as part of the Monthly Pricing Events reporting.
- AI 44-3: IESO to provide plan/schedule for addressing the “Exporting Operating Reserve Initiative” at next Working Group meeting (27 Sep 07).  
**Status:** Closed. Refer to discussion under agenda item 1(b).
- AI 44-4: IESO to report on the use and impact of Shared Activation of Reserve and inadvertent energy.  
**Status:** open. Refer to discussion under agenda item 2.
- AI 44-5: IESO to provide the working group with the scope of the LMP study being conducted under stakeholder engagement plan SE-25.  
**Status:** open.
- AI 45-1: IESO to provide summary of MPWG member feedback on 2008 priority issues for discussion at the December 6<sup>th</sup>, 2007 MPWG meeting.  
**Status:** open
- AI 45-2: IESO to establish a MPWG meeting standing agenda item for Member Issues.  
**Status:** open

- AI 45-3: IESO to provide summary of MPWG member feedback on proposed definitions of efficiencies and price for discussion at the December 6<sup>th</sup>, 2007 MPWG meeting.

**Status:** open

- AI 45-4: IESO to report back to the MPWG on the following with respect to OPA DR programs:

1. Should expected DR3 programs activations were used to consider generator and transmission outages?
2. What planning and real-time information regarding these programs can be made public?
3. Can the transparency of the triggering of these programs be improved?
4. Define the rules for open and closed notification for the DR3 program.
5. Are market rules needed to authorize the IESO role in the OPA DR programs?
6. Simple numerical examples of DR2 and DR3 response.

**Status:** open